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**Emission Guidelines for Existing Small
Municipal Waste Combustion Units; Final
Rule**

**ENVIRONMENTAL PROTECTION
AGENCY****40 CFR Part 60**

[AD-FRL-6899-5]

RIN 2060-AI51

**Emission Guidelines for Existing Small
Municipal Waste Combustion Units****AGENCY:** Environmental Protection
Agency (EPA).**ACTION:** Final rule.

SUMMARY: This action reestablishes emission guidelines for existing small municipal waste combustion (MWC) units. The emission guidelines contain stringent emission limits for organics (dioxins/furans), metals (cadmium, lead, mercury, and particulate matter), and acid gases (hydrogen chloride, sulfur dioxide, and nitrogen oxides). Some of those pollutants can cause toxic effects such as eye, nose, throat, and skin irritation, and blood cell, heart, liver, and kidney damage. Emission guidelines for small MWC units were originally promulgated in December 1995, but were vacated by the U.S. Court of Appeals for the District of Columbia Circuit in March 1997. In response to the 1997 vacature, on August 30, 1999, EPA proposed to reestablish emission guidelines for small MWC units. The emission guidelines contained in this final rule are equivalent to the 1995 emission guidelines for small MWC units.

DATES: *Effective date.* February 5, 2001.

The incorporation by reference of certain publications listed in this rule are approved by the Director of the Office of the Federal Register as of February 5, 2001.

Applicability date. The emission guidelines apply to small MWC units that commenced construction on or before August 30, 1999.

ADDRESSES: Docket No. A-98-18 and associated Docket Nos. A-90-45 and A-89-08 contain supporting information for the emission guidelines. The dockets are available for public inspection and copying between 8:00 a.m. and 5:30 p.m., Monday through Friday, at EPA's Air and Radiation Docket and Information Center (Mail Code-6102), 401 M Street SW, Washington, DC 20460, or by calling (202) 260-7548. The dockets are located at the above address in Room M-1500, Waterside Mall (ground floor). A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Rick Copland at (919) 541-5265, Combustion Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, NC 27711, e-mail: copland.rick@epa.gov.

SUPPLEMENTARY INFORMATION:**Public Comments**

Emission guidelines and companion new source performance standards (NSPS) for small MWC units were proposed on August 30, 1999 (64 FR 47276), and 48 comment letters were received on the proposals. Verbal comments were also received at the

October 5, 1999 public hearing. The comment letters and a transcript of the public hearing are available in Docket No. A-98-18. A summary of and responses to the public comments are contained in "Small Municipal Waste Combustors: Background Information Document for New Source Performance Standards and Emission Guidelines-Public Comments and Responses (EPA-453/R-00-001)." In response to the public comments, EPA adjusted the final emission guidelines where appropriate. A copy of the background information document is located in Docket No. A-98-18.

World Wide Web

Electronic versions of this action, the regulatory text, and other background information, including the response to comments document, are available at the Technology Transfer Network web site (TTN Web) that EPA has established for the emission guidelines for small MWC units: "http://www.epa.gov/ttn/uatw/129/mwc/rimwc2.html." For assistance in downloading files, call the EPA's TTN Web Help Line at (919) 541-5384.

Regulated Entities

No entities are directly regulated by this action because these are emission guidelines. Additional State or Federal action is required for implementation of the emission guidelines. However, adoption of State or Federal plans implementing the emission guidelines will affect the following categories of sources:

Category	NAICS codes	SIC codes	Examples of regulated entities
Industry, Federal government, and State/local/tribal governments.	562213, 92411	4953 9511	Solid waste combustors or incinerators at waste-to-energy facilities that generate electricity or steam from the combustion of garbage (typically municipal waste); and solid waste combustors or incinerators at facilities that combust garbage (typically municipal waste) and do not recover energy from the waste.

The above list is not intended to be exhaustive, but rather provides a guide regarding the entities EPA expects to be regulated by applicable State or Federal plans implementing the emission guidelines for small MWC units. Not all facilities classified under the NAICS and SIC codes will be affected. Other types of entities not listed could also be affected. To determine whether your facility will be regulated by State or Federal plans implementing the emission guidelines, carefully examine the applicability criteria in §§ 60.1550 through 60.1565 of the emission guidelines.

Judicial Review

Today's action of adopting a final rule for small MWC units constitutes final administrative action on the proposed emission guidelines for small MWC units. Under section 307(b)(1) of the Clean Air Act (CAA), judicial review of this final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by February 5, 2001. Under section 307(d)(7)(B) of the CAA, only an objection to this final rule that was raised with reasonable specificity during the period for public comment

can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by EPA to enforce the requirements.

Organization of This Document

The following outline is provided to aid in locating information in this preamble.

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 - F. Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), 5 U.S.C. 601 *et seq.*
 - G. Paperwork Reduction Act
 - H. National Technology Transfer and Advancement Act
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Abbreviations and Acronyms Used in This Document

- ASME American Society of Mechanical Engineers
- CFR Code of Federal Regulations
- EIA Economic Impact Analysis
- EPA U.S. Environmental Protection Agency
- FR **Federal Register**
- ICR Information Collection Request
- kg/year Kilograms per year
- MACT Maximum achievable control technology
- Mg/year Megagrams per year
- MSW Municipal solid waste
- MWC Municipal waste combustion
- NAICS North American Industrial Classification System
- NSPS New source performance standards
- NTTAA National Technology Transfer and Advancement Act
- OAQPS Office of Air Quality Planning and Standards
- OMB Office of Management and Budget
- OP Office of Policy
- Pub. L. Public Law
- RFA Regulatory Flexibility Act
- SBREFA Small Business Regulatory Enforcement Fairness Act
- SIC Standard Industrial Classification
- TTN Technology Transfer Network
- UMRA Unfunded Mandates Reform Act
- U.S. United States
- U.S.C. United States Code

I. Background Information

On December 19, 1995, EPA promulgated emission guidelines for large and small MWC units under 40 CFR part 60, subpart Cb. The emission guidelines covered existing MWC units located at plants with an aggregate plant combustion capacity greater than 35

megagrams per day of municipal solid waste (MSW)(approximately 39 tons per day of MSW). The 1995 emission guidelines divided the MWC unit population into MWC units located at large MWC plants and MWC units located at small MWC plants. Plant size was based on the total aggregate capacity of all individual MWC units at a MWC plant.

Litigation followed the promulgation of the 1995 emission guidelines. In 1997, the U.S. Court of Appeals for the District of Columbia Circuit ruled that EPA must develop regulations for small MWC units (units with an individual MWC capacity of 250 tons per day or less) separately from regulations for large MWC units (units with an individual MWC unit capacity greater than 250 tons per day), indicating that the 1995 emission guidelines were not consistent with section 129 of the CAA. The court directed EPA to revise the 1995 emission guidelines so that they applied only to large MWC units, and the court vacated the 1995 emission guidelines as they applied to small MWC units. In response to the court ruling, EPA amended the 1995 emission guidelines on August 25, 1997 so that they applied only to existing large MWC units. Then, on August 30, 1999, EPA proposed emission guidelines for small MWC units with an individual unit capacity of 35 to 250 tons per day.

Today's final rule reestablishes emission guidelines for existing small MWC units with capacities of 35 to 250 tons per day of MSW under 40 CFR part 60, subpart BBBB.

II. Summary of the Emission Guidelines

The following summarizes the final emission guidelines for small MWC units, including identification of the subcategories used in the final emission guidelines. Overall, the emission guidelines for small MWC units are equivalent to the 1995 emission guidelines for small MWC units.

A. Sources Regulated by the Emission Guidelines

Today's emission guidelines do not directly regulate any MWC units, but they require States to develop plans to limit air emissions from existing small MWC units. In subpart BBBB and in associated State plans, the emission limits and requirements will apply to each existing small MWC unit that has a design combustion capacity of 35 to 250 tons per day of MSW and commenced construction on or before August 30, 1999. Small MWC units that commenced construction after August 30, 1999 are not covered under the emission guidelines (subpart BBBB).

Those units will be subject to the NSPS for new small MWC units (subpart AAAA) which are published separately in today's **Federal Register**.

B. Subcategorization of the Small MWC Unit Population

Within the emission guidelines, the small MWC unit population is subcategorized based on aggregate capacity of the plant where the individual small MWC unit is located. The resulting subcategories are as follows: Class I units are small MWC units located at plants with an aggregate plant capacity greater than 250 tons per day of MSW; Class II units are small MWC units located at plants with an aggregate plant capacity less than or equal to 250 tons per day of MSW.

C. Pollutants Regulated by the Emission Guidelines

Section 129 of the CAA requires EPA to establish numerical emission limits for dioxins/furans, cadmium, lead, mercury, particulate matter, opacity, sulfur dioxide, hydrogen chloride, nitrogen oxides, and carbon monoxide. Section 129 specifies that EPA may also:

* * * promulgate numerical emission limitations or provide for the monitoring of post-combustion concentrations of surrogate substances, parameters, or periods of residence times in excess of stated temperatures with respect to pollutants other than those listed [above] * * *.

Therefore, in addition to emission limits, EPA is establishing requirements for MWC unit operating load, flue gas temperature at the particulate matter control device inlet, and carbon feed rate as part of the good combustion practice requirements. The EPA is also establishing requirements for the control of fugitive ash emissions. All of those requirements were contained in the 1995 emission guidelines.

D. Format of the Emission Limits

The format of the emission limits is identical to the format of the emission limits in the 1995 emission guidelines: emission limits based on pollutant concentration. Alternative percentage reduction requirements are provided for mercury, sulfur dioxide, and hydrogen chloride. Opacity and fugitive ash requirements are the same as the 1995 emission guidelines. In addition to controlling stack emissions, the emission guidelines incorporate good combustion practice requirements (*i.e.*, operator training, operator certification, and MWC unit operating requirements).

E. Summary of the Emission Guidelines

A concise summary of the emission guidelines can be found in Tables 2 through 4 of subpart BBBB.

III. Changes to the Emission Guidelines

For the majority of small MWC units that will be subject to emission guideline requirements, the final emission guidelines are identical to the emission guidelines proposed in August 1999. However, one change made in the final emission guidelines affects requirements for about five MWC plants. That change is summarized in the following three paragraphs and is also discussed in the background information document described earlier under "Public Comments."

In the proposal, different emission limits were proposed for MWC units in Class A and Class B. Class A MWC units were nonrefractory MWC units located at MWC plants with an aggregate plant capacity greater than 250 tons per day. Class B MWC units were refractory units located at MWC plants with an aggregate plant capacity greater than 250 tons per day. The 1999 proposal included different emission limits for Class A and Class B units because it had been brought to EPA's attention that different flue gas flow rates per ton of MSW combusted were expected to occur at Class A and Class B units. The 1995 emission guidelines did not make the distinction in flue gas flow rates and treated Class A and Class B units as a combined class with the same requirements.

Some comments on the proposal indicated that the proposed subcategorization with different control requirements for Class A and Class B was appropriate. However, other comments on the proposal indicated that the technical bases for the Class A and Class B subcategorization was no longer valid for today's MWC units and the subcategory was inappropriate. The EPA reanalyzed the issue and has concluded that the flue gas flow rates for Class A and Class B MWC units are not significantly different. As a result, the Class A units and the Class B units are combined into a single Class I category in the final emission guidelines as had been done in the 1995 emission guidelines.

Maximum achievable control technology (MACT) floors were then calculated for the Class I units, and then new MACT limits were selected. Uniform emission limits now apply to all Class I MWC units. With the exception of nitrogen oxides, the final emission limits for Class I units are identical to the 1995 emission limits for

Class I units. The full set of final emission limits for Class I and Class II can be found in Tables 2, 3 and 4 of Subpart BBBB. See the background information document for a discussion of other comments on the proposed emission guidelines.

IV. Impacts of the Emission Guidelines

The following describes the impacts (*i.e.*, air, water, solid waste, energy, cost, and economic impacts) of the emission guidelines for small MWC units. The impact analysis conducted to evaluate the 1995 emission guidelines still applies because the air pollution control requirements in the final emission guidelines are the same as the 1995 emission guidelines. The 1995 analysis is available at 59 FR 48228. The discussion in this preamble focuses only on the air, cost, and economic impacts of the final emission guidelines.

As discussed in the preamble for the 1995 emission guidelines, EPA determined that the water, solid waste, and energy impacts associated with the emission guidelines were not significant. Today's action affects only a subset of the MWC units that were addressed in the earlier impact analysis. Accordingly, EPA has concluded that the water, solid waste, and energy impacts associated with today's action are not significant.

For further information on the impacts of the emission guidelines, refer to "Economic Impact Analysis (EIA): Small Municipal Waste Combustion Units—Emission Guidelines and New Source Performance Standards" March 2000 (EPA-452/R-00-001).

A. Air Impacts

As discussed in the EIA, the EPA estimates that 90 small MWC units operating at 41 plants will be affected by the emission guidelines. The total MSW combustion capacity of the 90 units was 8,551 tons per day in 1998.

Table 1 of this preamble presents the national air emission reductions for existing small MWC units that will result from full implementation of the emission guidelines compared to 1998 baseline levels without the emission guidelines.

TABLE 1.—NATIONAL AIR EMISSION IMPACTS OF THE EMISSION GUIDELINES FOR SMALL MWC UNITS

Pollutant	Air emissions reduction	Emission level ^a
Dioxins/ Furans ^b	2.7 kg/year	97
Cadmium	310 kg/year	85
Lead	12.9 Mg/year	92
Mercury	4.1 Mg/year	95

TABLE 1.—NATIONAL AIR EMISSION IMPACTS OF THE EMISSION GUIDELINES FOR SMALL MWC UNITS—Continued

Pollutant	Air emissions reduction	Emission level ^a
Particulate Matter.	369 Mg/year	77
Sulfur Dioxide	1,368 Mg/year ..	56
Hydrogen Chloride.	2,456 Mg/year ..	88
Nitrogen Oxides.	384 Mg/year	9

^aPercent reduction from 1998 baseline.

^bPercent national emission reduction relative to national baseline emissions that would occur in the absence of the emission guidelines.

^cTotal mass of tetra-through octachlorinated dibenzo-p-dioxins and dibenzofurans.

B. Cost and Economic Impacts

To estimate the costs of the emission guidelines, EPA has taken into account all of the existing air pollution control equipment currently in operation at small MWC units. The cost estimates presented here are incremental costs over the control equipment already in use. For more details on the cost and economic analysis, refer to the EIA.

The total annual cost (including annualized capital and operating costs) of the final emission guidelines would be approximately \$68 million, which is equivalent to \$25.30 per ton of MSW combusted.

V. Companion Rule for New Small MWC Units

A companion rule to reestablish NSPS for new small MWC units is being published separately in today's **Federal Register**. The NSPS for new small MWC units are contained in 40 CFR part 60, subpart AAAA.

VI. Amendments to 40 CFR Part 60, Subpart B

Also included in today's **Federal Register** is a rule to amend subpart B of part 60, "Adoption and Submittal of State Plans for Designated Facilities." The EPA proposed two amendments to subpart B, which are fully described in the proposal to reestablish emission guidelines for small MWC units (64 FR 47241). The EPA received no comments on the amendments to subpart B; therefore, the amendments are being promulgated as proposed.

VII. Administrative Requirements

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the EPA must determine whether the regulatory action